

What is claimed is:

1. A method of processing Voice band Data in a communication path in a telecommunication network, said communication path consisting of a plurality of Voice band Data relay gateways, including a first Voice band Data relay gateway, a last Voice band Data relay gateway, and at least one voice band dat relay gateway between the first and last Voice band Data relay gateways, said method comprising:  
  
detecting the at least one Voice band Data relay gateway between the first and last Voice band Data relay gateways; and disabling the at least one Voice band Data relay gateway between the first and last Voice band Data relay gateways, whereby the at least one Voice band Data relay gateway between the first and last Voice band Data relay gateways does not encode and decode the Voice band Data.
2. A method as recited in claim 1, further comprising using said first and last Voice band Data relay gateways to encode and decode the Voice band Data.
3. A method as recited in claim 1, further comprising disabling all of the Voice band Data relay gateways between the first and last Voice band Data relay gateways in the communication path, whereby the Voice band Data relay gateways between the first and last Voice band Data relay gateways do not encode and decode the Voice band Data.

4. A method as recited in claim 1, further comprising initiating a probing sequence to detect the presence of Voice band Data.
5. A method as recited in claim 1, wherein the communication network includes a calling terminal and an answerer terminal, and the method provides that a probing sequence is initiated by the calling terminal to detect the presence of a Voice band Data relay.
6. A method as recited in claim 5, further comprising initiating the probing sequence via Non-standard facilities using the calling terminal.
7. A method as recited in claim 1, wherein the telecommunication network is configured to provide communication in a pre-determined protocol, and the protocol includes a non-standard information field following standard fields in each Call Menu signal and Joint Menu signal sequence to define information beyond what is defined in the protocol, said method further comprising having a gateway receive a Call Menu signal which contains standard fields, and transmit a Joint Menu signal with information relating to the presence and capability of the Joint Menu signal contained in the non-standard information field.

8. A method as recited in claim 7, wherein the protocol is V.8.
9. A method as recited in claim 1, further comprising modulating an answer tone with a signature pattern at a pre-determined frequency.
10. A method as recited in claim 9, further comprising modulating the answer tone such that the modulation is minimally intrusive to network echo cancellers, which use the answering tone as a means to get disabled, when the tone is detected in either direction in the communication path.
11. A method as recited in claim 10, wherein the communication network includes a calling terminal and an answerer terminal, further comprising providing that the gateway which detects the modulated answer tone actively mutes signals from the calling terminal toward the answerer terminal.
12. A method as recited in claim 11, further comprising providing that upon detection of the calling tone, a gateway sends a reply tone to a gateway transmitting the modulated tone.
13. A method as recited in claim 12, wherein the reply signal is a single tone at a pre-determined frequency for a pre-determined time interval.

14. A method as recited in claim 13, wherein the time interval does not exceed 100ms.
15. A method as recited in claim 12, wherein the reply signal consists of the 1800 Hz tone in addition to another signal with lower amplitude.
16. A method as recited in claim 1, further comprising having the gateways achieve a common link rate during modem training.
17. A method as recited in claim 16, further comprising having a gateway retrain at a lower rate in order to achieve a common link rate along the communication path.
18. A method as recited in claim 1, further comprising padding the data to allow transmission into a higher speed link rate.
19. A method as recited in claim 1, further comprising scrambling demodulated data in one direction and descrambling the data in an opposite direction, in order to insure that network echo cancellers remain disabled.
20. A method as recited in claim 1, further comprising transmitting a fixed non-scrambled pattern along the communication path followed by a fixed length message containing a command.